

L. VON SÜSSKIND.
PROCESS OF DRYING GOODS.
APPLICATION FILED APR. 24, 1908.

965,251.

Patented July 26, 1910.

2 SHEETS—SHEET 1.

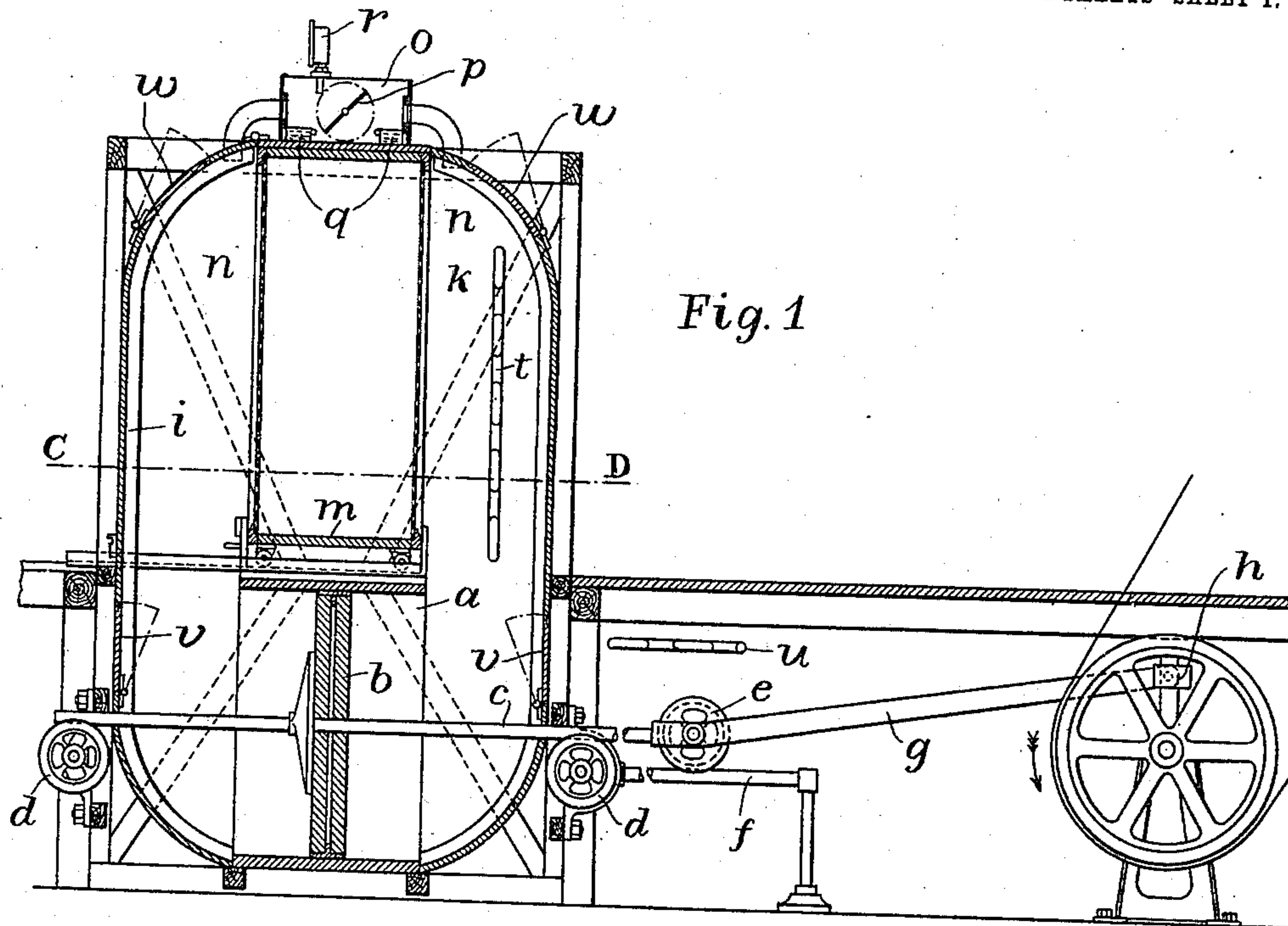


Fig. 1

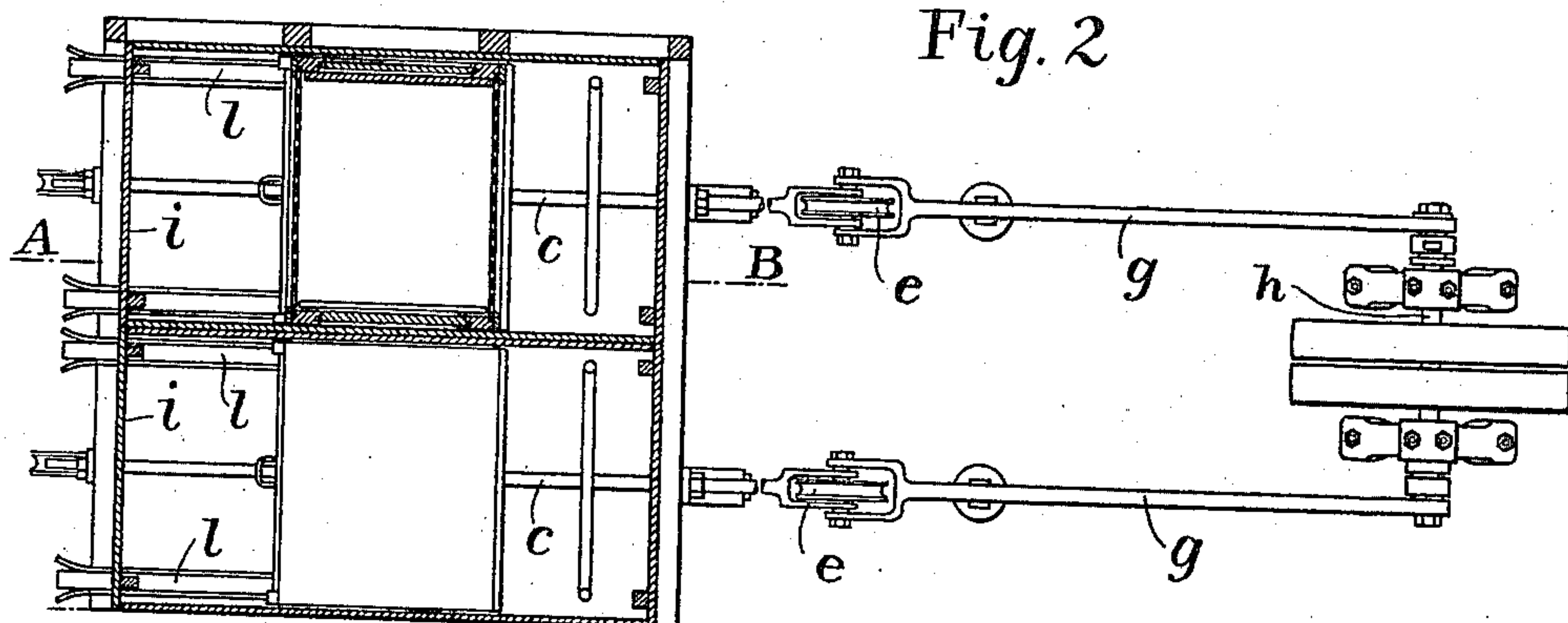


Fig. 2

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Fig. 3

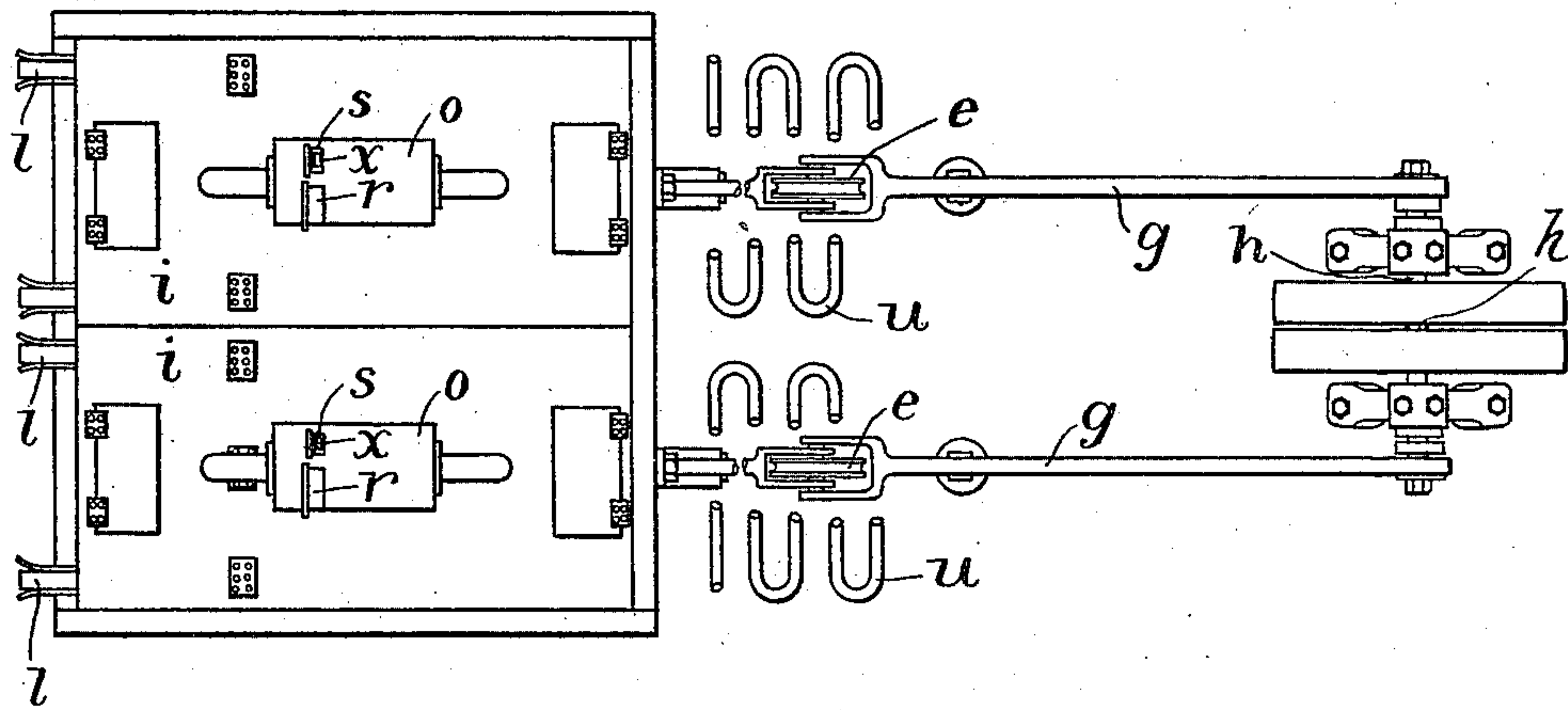


Fig. 4

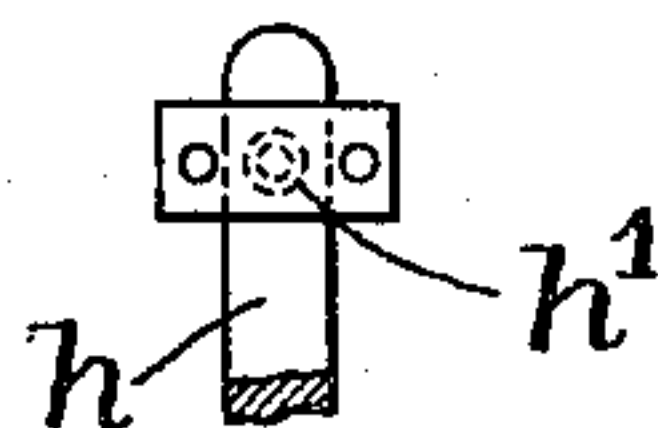
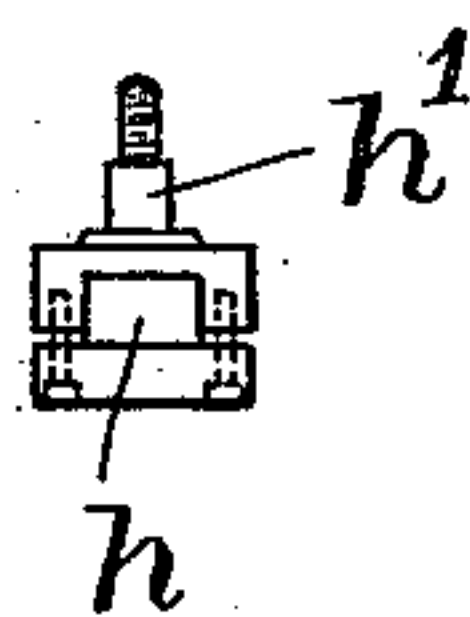


Fig. 5



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LUDWIG VON SÜSSKIND, OF ST. GEORGEN, NEAR ST. GALLEN, SWITZERLAND.

PROCESS OF DRYING GOODS.

965,251.

Specification of Letters Patent.

Patented July 26, 1910.

Application filed April 24, 1908. Serial No. 429,033.

To all whom it may concern:

Be it known that I, LUDWIG VON SÜSSKIND, a subject of the German Emperor, and resident of St. Georgen, near St. Gallen, Switzerland, have invented a certain new and useful Improvement in Processes of Drying Goods, of which the following is a specification.

This invention relates to a process of drying substances, especially macaroni. In this process air compressed by means hereinafter described is passed backward and forward through the macaroni or the like carried on a truck. According to the invention the volume of air compressed is divided into two streams determined by the degree of dryness required, one stream being passed through a closed chamber in which the truck is located, and the other stream being passed through a conduit provided with a regulating device, the adjustment of which determines the relative proportions of the fractions of the divided volume of air.

The drawings show a suitable apparatus for performing the process.

Figure 1 is a longitudinal section of the apparatus on the line A—B of Fig. 2, Fig. 2 is a vertical section on the line C—D of Fig. 1; Fig. 3 is a plan. Fig. 4 is a front view and Fig. 5 a plan of the crank and the adjustable crank pin.

As shown a piston *b* moves in the chamber *a*. The piston rod *c* rests on rollers *d* and on a guide rod *f* by means of a roller *e*; this piston rod is further connected by a connecting rod *g* with a crank shaft *h* having an adjustable crank pin *h'* (Figs. 4 and 5) and driven in the usual manner. The chamber *a* is inclosed in a large chamber *k* having side doors *i* and rails *l* for the truck *m* to be moved in and out, this chamber *k* being of such a width that two chambers *n* remain on either side when the truck is inside, these chambers *n* being connected with one another by an overhead conduit *o* provided with a valve *p*. In the conduit *o* are placed two water vessels *q* for regulating the degree of moisture.

r indicates a manometer, *x* a thermometer and *s* a hygrometer.

Heating bodies *t* and *u* serve to regulate the temperature of the compressed air.

The apparatus is further provided with two fresh air suction valves *v* and two moist air outlet valves *w*.

When the crank shaft is driven, the piston moves to and fro and compressed air is produced on the one side of the piston and a vacuum on the other side. According to the adjustment of the valve *p* the whole of the air current or only part of the same passes through the goods, the other part of the air current passes through the conduit *o* from the pressure side of the piston to its suction side.

Having now described my invention what I claim and desire to secure by Letters Patent of the United States is—

1. The herein described process of drying moist substances consisting in compressing air in a closed chamber containing the substance to be dried, dividing the volume of compressed air into two streams according to the degree of dryness required, causing one stream to pass through the substance to be dried and causing the other stream to follow a parallel path out of contact with said substance.

2. The herein described process of drying moist substances consisting in compressing air in a closed chamber containing the substance to be dried, dividing the volume of air into two streams according to the degree of dryness required, causing one stream to pass through the substance to be dried and causing the other stream to follow a parallel path and to overcome an adjustable resistance, regulating the temperature and dryness of the second stream, and reuniting the said streams.

3. The herein described process of drying moist substances, consisting in compressing a volume of air in a closed chamber containing the substance to be dried, causing one fraction of the volume of compressed air to overcome the resistance presented by the substance and to pass through said substance, and causing the other fraction to overcome a regulatable resistance and to follow a parallel path on the outside of the chamber.

4. The herein described process of drying moist substances consisting in passing a stream of air backward and forward in a

circuit including the substance to be dried,
passing a second stream of air through a
parallel circuit including a regulatable re-
sistance while controlling the degree of dry-
5 ness and temperature of the air, and reunit-
ing the streams after their passage through
the respective circuits.

In testimony whereof, I have signed my
name to this specification in the presence of
two subscribing witnesses.

LUDWIG VON SÜSSKIND.

Witnesses:

ALFRED HOFMANN,
A. LIEBERKNECHT.